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INCREASED FUEL SAVINGS, VISIBILITY HIGHLIGHT NEW WHEEL LOADERS, LOG LOADERS AND EXCAVATORS

NEW ATTACHMENTS LEND INCREASED ADAPTABILITY TO EXCAVATORS

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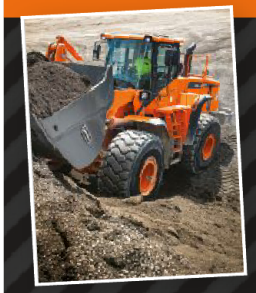
DOOSAN

ABOUT THE COVER



Babcock Paving Company, a family-run business in Indiana, finds the power needed to haul large loads of reclaimed asphalt with a Doosan wheel loader.

DOOSAN WEB GUIDE

More information about Doosan products is just a click away.

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2 NEW WHEEL LOADERS

Two new Doosan wheel loaders — the DL250-5 and DL250TC-5 (tool carrier) — replace the "dash-3" (interim Tier 4) models with a Tier 4 diesel engine solution.

Two lift-arm choices

Choose a DL250-5 featuring a Z-bar lift arm or the DL250TC-5 featuring a parallel-lift-arm design. The Z-bar lift arm (left) is ideal for digging, heavy lifting and general construction tasks. The parallel-lift-arm design helps keep items level during the lift cycle.

Better visibility

Gain better visibility on the jobsite, especially at night, with new rear LED lights.

Greater dump height

Reach and dump materials higher with a high lift Z-bar option on the DL250-5, which is particularly useful in mining and infrastructure applications.

Comfortable cab

Operate in a quiet, comfortable cab. An adjustable steering column provides operators with more leg room, ease of operation and extended floor space. A new fuel consumption gauge displays real-time fuel usage.

Fuel savings

Configure the auto-idle and auto-shutdown systems to help reduce fuel consumption when the machine is sitting idle. When enabled, the feature will auto-shutdown the wheel loader's engine when the preset idle time is met — from 3 to 60 minutes.

Change attachments faster

Add an optional quick coupler to your Doosan wheel loader to easily change attachments to match specific applications.

Improved serviceability

Additional oil sampling ports improve preventive maintenance procedures, and various pressures are viewable via the dash panel. A new air cleaner offers longer replacement intervals.

Tier 4 solution

Doosan achieved Tier 4 emission requirements without a diesel particulate filter (DPF). The Tier 4 emission system includes:

- High-pressure common-rail fuel delivery system
- Wastegate turbocharger
- Cooled exhaust gas recirculation
- Diesel oxidation catalyst
- Selective catalyst reduction with diesel exhaust fluid

Visit **www.doosanequipment.com** and click on the Wheel Loaders link on the Products tab to learn more about Doosan wheel loaders and attachments.

8 NEW EXCAVATORS

Doosan expands its excavator lineup with new Tier 4-compliant models replacing the "dash-3" (interim Tier 4) models — including five crawler excavator models and three wheel excavator models. Two "LCR" crawler excavators provide reduced tail swing for working in tight areas where larger equipment won't fit, and the DX225LC-5 features a super-long-reach option for greater dig depth. Known for their easy maneuvering and on-road transporting, the new wheel excavators offer fast travel speeds and are ideal for highway and street development, construction and manufacturing operations.

NEW CRAWLER EXCAVATORS

- DX140LC-5
- DX140LCR-5
- DX180LC-5
- DX225LC-5
- DX235LCR-5

APPROVED ATTACHMENTS

- Breaker
- Bucket, ditching
- Bucket, trenching
- Clamp
- Plate compactor
- Quick coupler

Go to page 14 to learn more about how to put Doosan attachments to work on upcoming projects.

Productivity boost

Maintain or boost machine productivity and reduce fuel consumption with the Smart Power Control feature. Smart Power Control consists of two systems — Variable Speed Control and Pump Torque Control — that work together to improve machine efficiency. Variable Speed Control reduces engine rpm during low workload requirements, including during the swing portion of a dig cycle. Pump Torque Control efficiently matches hydraulic pump torque and engine response to the task, preventing engine overload and excess fuel consumption.

Selectable power modes

Choose from four work modes — Digging, Lifting, Breaker and Shear — or four power modes for maximum fuel efficiency. The excavator's Electronic Power Optimizing System (EPOS) provides an optimum machine balance of power and fuel efficiency to match the task at hand.

NEW WHEEL EXCAVATORS

- DX140W-5
- DX190W-5
- DX210W-5

Ergonomic joystick

Work more comfortably using the new, ergonomically designed joystick control in Doosan wheel excavator cabins.

Stable workgroup

Configure a Doosan wheel excavator with a dozer blade or outriggers. Level or backfill material with the dozer blade, or stabilize the machine during digging or lifting applications.

Smooth ride

Travel comfortably when transporting wheel excavators because of the excavator's travel motor and transmission control in the driveline.

Enhanced visibility

Monitor the excavator parameters while viewing the rearview or side-view camera image on an improved 7-inch LCD screen.

Improved serviceability

Gain easy access to the excavator's engine compartment to perform routine maintenance. Arm grease points are centralized for simplified maintenance.

Fuel-saving features

Save fuel during non-working situations with auto idle that reduces engine rpm when a machine function hasn't been used for a few seconds. Auto shutdown will automatically shut down the engine when the preset idle time is met — from 3 to 60 minutes.

Designed for tight areas

The reduced tail swing DX140LCR-5 has just 9 inches of overhang compared to 3 feet with the conventional DX140LC-5.

Visit **www.doosanequipment.com** and click on the Crawler and Wheel Excavators links on the Products tab to learn more about Doosan excavators.

MORE HORSEPOWER. MORE WEIGHT. MORE STRENGTH TO GRAB AND GO.

The new Doosan DX300LL-5 log loader combines strength and precision — along with multiple machine enhancements — to improve operator productivity. The new model features a Tier 4-compliant diesel engine and replaces the previous "dash-3" (interim Tier 4) model.

Versatile attachment

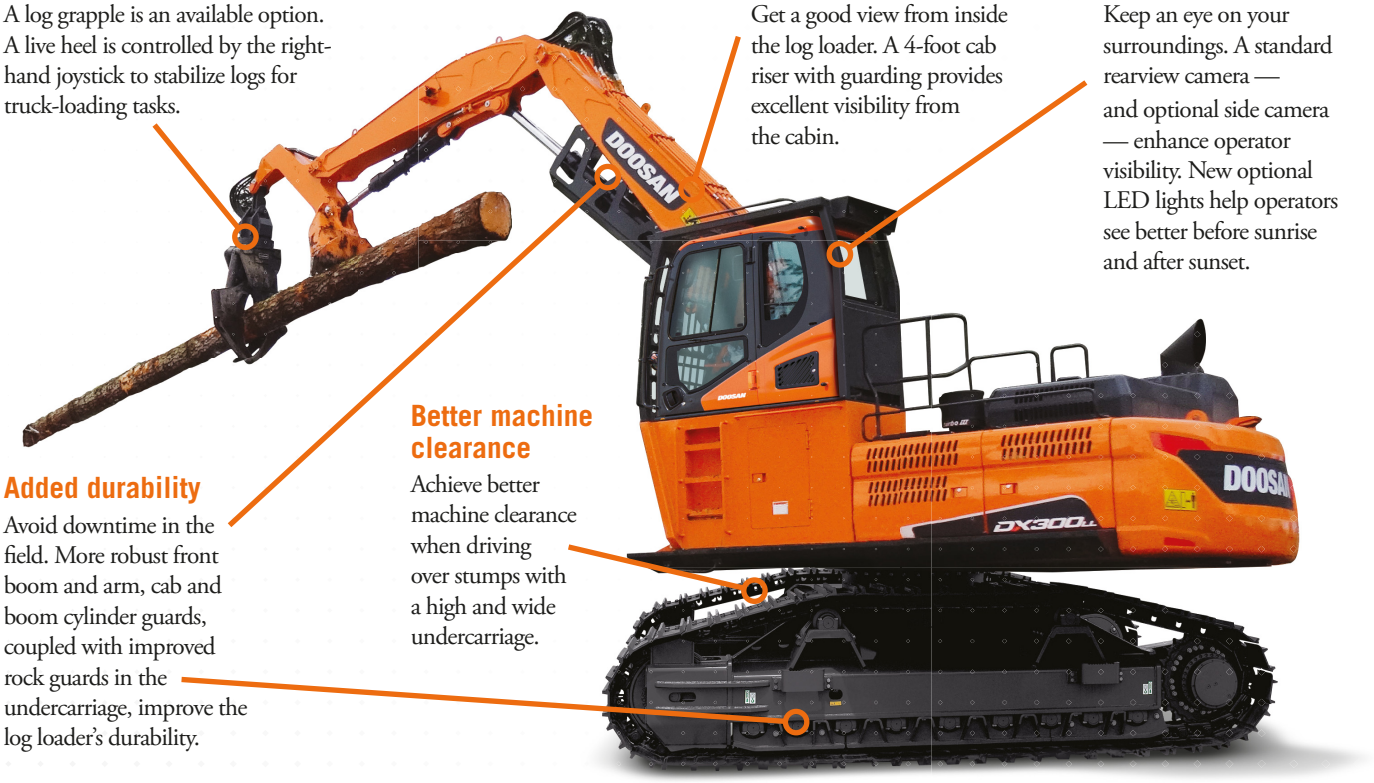
A log grapple is an available option. A live heel is controlled by the right-hand joystick to stabilize logs for truck-loading tasks.

Enhanced visibility

Get a good view from inside the log loader. A 4-foot cab riser with guarding provides excellent visibility from the cabin.

Rearview camera

Keep an eye on your surroundings. A standard rearview camera — and optional side camera — enhance operator visibility. New optional LED lights help operators see better before sunrise and after sunset.



Better machine clearance

Achieve better machine clearance when driving over stumps with a high and wide undercarriage.

Added durability

Avoid downtime in the field. More robust front boom and arm, cab and boom cylinder guards, coupled with improved rock guards in the undercarriage, improve the log loader's durability.

■ Visit **www.doosanequipment.com** and click on the Log Loaders link on the Products tab to find additional information about Doosan log loaders.

How are log loaders built differently than traditional excavators?

High cab riser

Robust boom and arm

Cab guarding

MOVE MORE MATERIAL AND FINISH THE JOB WITH A HEAVY-DUTY DITCHING BUCKET

Pin-on or wedge-lock options

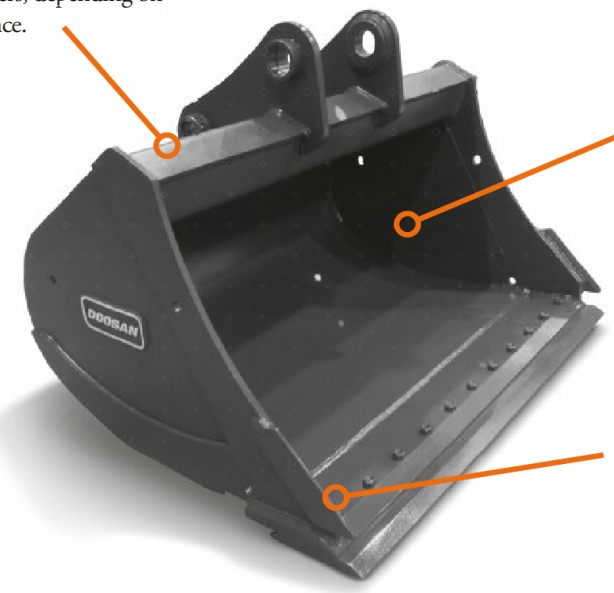
Thirteen heavy-duty ditching buckets are available as pin-on buckets or can be ordered to fit hydraulic or wedge-lock quick couplers, depending on customer needs or preference.

Lift eye

The lift eye is used for lifting applications.

Deep profile

A deep profile allows for smooth operation and optimal versatility when grading, backfilling, cleaning ditches for improved drainage.

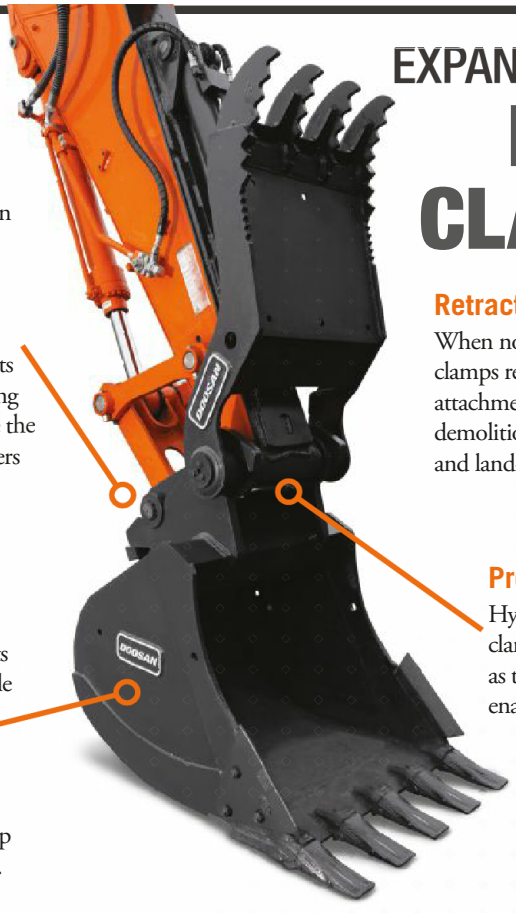


New design

New heavy-duty ditching buckets have a larger capacity compared to other Doosan ditching buckets, allowing for more material to be moved in one cycle of the excavator workgroup.

Weld-on side cutters and reversible bolt-on cutting edge

The side cutters and cutting edge leave a smooth work area when the job is completed.



EXPAND EXCAVATOR VERSATILITY WITH NEW WEDGE-LOCK CLAMP ATTACHMENT

Compatibility

The eight main pin clamps and seven pro-link wedge-lock clamps are compatible with wedge-lock buckets and couplers, giving operators who use the wedge-lock couplers more flexibility.

Retractable clamps

When not in use, the clamps retract, making the attachments excellent for demolition, site preparation and land-clearing applications.

Versatility

The new Doosan clamp attachments work with multiple bucket widths ranging from 24 to 60 inches, depending on the clamp type, to help maintain the load.

Precise movement

Hydraulic and pro-link wedge-lock clamps have the same characteristics as the non-wedge-lock-style clamp, enabling precise positioning.

Visit **www.doosanequipment.com** and click on the Attachments link on the Products tab for more information about the clamp and other attachments for Doosan excavators.

FOCUSED DECISIONS HELP LOGGING COMPANY MAKE THE CUT

Oregon logging company continues to find success with its ‘never give up’ motto

"I wanted something that was fuel-efficient, fast and innovative. The Doosan log loader had all of those qualities. It really takes a special machine to be a great log loader."

— Mike Pihl, Mike Pihl Logging Inc.

COMPANY INFO

Business: Mike Pihl Logging Inc.
In business since: 1986
Location: Vernonia, Oregon
Doosan fleet: DX225LL and DX300LL-3 log loaders
Doosan dealer: Feenaughty Machinery

Mike Pihl, 52, knows a thing or two about the forestry and logging industry. Mike and his twin brother, Matt, established their company, Pihl Brothers Logging, when they were just 22 years old.

"I'm just lucky to be a logger in an area where trees grow in abundance," Pihl says. "The average person is not meant to be a logger. It's just in my blood."

While the company grew steadily over the years, in 1986 the partnership dissolved, allowing Pihl to start Mike Pihl Logging Inc. Pihl's company expansion has continued and has become a family affair yet again. Today, his daughter, Lindsay, is the company's office manager and her husband, Kelly Baska, is a supervisor in the logging division. The company is based in Vernonia, Oregon (pop. 2,158), northwest of Portland, near Forest Grove State Forest and Clatsop State Forest.

The Doosan decision

Mike Pihl's employees log approximately 25 loads of Douglas fir each day, with 10 of those loads staying in the United States and the remainder exported to Japan, China and South Korea. To stay ahead of demand, Pihl purchased his first Doosan machine — a DX300LL-3 log loader with log grapple attachment — from Robert Payton with Feenaughty Machinery Company in Portland.

"The machine has great fuel efficiency and is just a good, solid machine," he says. "Plus, Feenaughty Machinery and Robert Payton are just amazing to work with. Without him I wouldn't have purchased the Doosan log loader."

According to Pihl, the DX300LL-3 log loader's durable undercarriage, spacious forestry cab, precise boom geometry and impressive lifting ability are just some of the qualities he was looking for to help log his average 20-acre site. Plus, with a 213-horsepower interim Tier 4-compliant engine, his choice to purchase the Doosan log loader has become one of his best-thought-out business decisions.

"I wanted something that was fuel-efficient, fast and innovative," he says. "The Doosan log loader had all of those qualities. It really takes a special machine to be a great log loader."

During a visit to The Real Operation Center (ROC) near Tucson, Arizona, Pihl had an opportunity to operate an assortment of Doosan heavy equipment. Upon his return to Oregon, he purchased a second Doosan log loader — a DX225LL.

Staying comfortable

Pihl's operators work approximately 11 hours a day, five days a week — so a comfortable, quiet cab and an adjustable suspension seat were important factors when deciding on a new log loader. After his operators started using the Doosan log loader and grapple, Pihl knew he made the right decision.

"One of my operators was a bit skeptical about the Doosan machine after working with a competitor's machine for so many years," he says. "However, after he tried out the Doosan DX300LL-3 log loader, he was pleased with how it performed and how comfortable it was. Our operators have a heated seat, rearview camera, MP3 player — basically all the amenities they need."

Plus, the spacious cab offers excellent visibility, lower noise levels and ergonomic controls, allowing operators to work seamlessly from their seat, Pihl added.

Pushing past challenges

Although the town of Vernonia is known for being a logging community, Mike Pihl Logging is only one of three logging companies left in the area. Two other larger companies went out of business after the economic downturn.

Pihl's company also took a hit during the recession, downsizing his staff of 50 employees to 25, and re-assessing his equipment fleet from 13 to 5 machines.

continued on page 10

"We had to look at some things and restructure our staff and thought process," Pihl says. "Before, we were always 'yes' people. Now, I don't make split decisions … I think more about things in advance. We are really very lucky to still be here."

Several factors have kept Pihl's business afloat, including his dedicated workers — most have worked for his company for at least 12 years — as well as a dedication to maintaining a high level of safety while working on tough jobsites. All of his employees wear hardhats, cork boots and chaps to stay safe on the jobsite.

"There's no question it's a very dangerous job," he says. "I tell my guys to always call me if they feel uncomfortable about the job, and we talk through it. I try to keep my employees happy so that's why I treat them better than I do myself at times. For instance, if they want a new machine, I try my best to satisfy their request."

The road to success

Although Mike Pihl Logging has had its ups and downs, the core of the business has stayed strong over the years because of a variety of factors, including maintaining good public relations with its customers.

"We have a different business model than most other loggers because we specialize in private properties," he says. "Public relations is very important because if you are working on a private piece of land, you need to make sure you are communicating with the landowners and making sure their requests are met. Our guys do a great job of communicating, so we aren't going over the property lines or cutting the wrong-size links."

Along with communication, a crucial factor that has remained steadfast to Pihl over the years is his business motto: Never give up.

"Things can change in a heartbeat," he says. "Things can be going well and then the economy drops, and you are flat on your face. I really try to tell my employees to work hard, to be honest and to never give up on anything they set their mind to." **DM**

Visit **www.doosanequipment.com** and click on the Log Loaders link on the Products tab to learn more about the machines.

Mike Pihl's name might ring a bell to those who watch History Channel's "Ax Men" — a reality TV show that follows loggers throughout the United States and shows how they perform day-to-day functions. Pihl and his crew, including his son-in-law, were featured on seasons 1 through 3. His company was also sporadically featured on seasons 4 and 5.

Pihl said being on the show was a great promotion for him and his company.

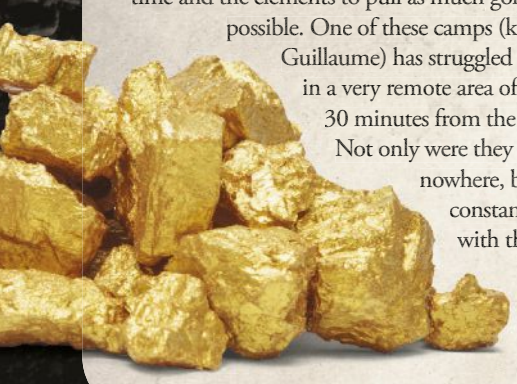
"To me it showed the viewers that there are still people in America who get up early in the morning, produce a commodity and make the world turn," he says. "It's important for people to know where they get their wood product from."

Since "Ax Men," Pihl has traveled throughout the United States, giving speeches on his experience and what it takes to be a professional logger.

"The show was a great benefit to me, because it shows how hard our employees and machines work," he says. "We are dedicated to what we do."

DOOSAN EXCAVATOR GIVES MINERS A COMPETITIVE ADVANTAGE

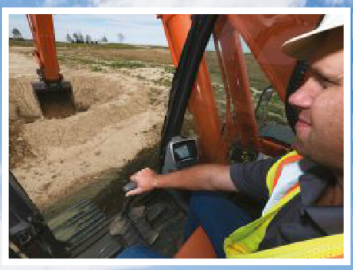
Ken Foy and Guillaume Brodeur operated the new Doosan DX225LC crawler excavator with bucket and clamp on the television show "Yukon Gold" on History Canada. The show follows four placer gold miners in the Yukon as they race against time and the elements to pull as much gold out of the ground as possible. One of these camps (known as Ken and Guillaume) has struggled for the past two years in a very remote area of the Yukon, approximately 30 minutes from the Alaskan border. Not only were they in the middle of nowhere, but they also were constantly facing breakdowns with their old equipment.



The latest season has Ken and Guillaume mining in a new, even more remote location. But as Ken says in the first episode, they are going to start with "a shiny new piece of equipment" (the Doosan excavator). Unlike their past equipment and some of the equipment at the other mining camps, Ken and Guillaume's new Doosan excavator is problem-free. They use it to clear a snow-covered road at the beginning of the season after their old dozer proves ineffective. They continue to use it from one mine to the next, digging up pay dirt. They only have good things to say about the Doosan ... it is the one thing they can rely on.

Doosan of Whitehorse, the local Doosan heavy equipment dealer, provided the DX225LC excavator for use on the show. DM

Photo credit: A. Blasberg/Paperny Entertainment Inc.



Using a Doosan hydraulic quick coupler, Kersten's operators can change buckets — without leaving the cab.

A FIRST FOR OMAHA LEADS TO DOZENS OF PRODUCTIVE PROJECTS

Kersten Construction lays 6,500 feet of storm sewer pipe with the help of Doosan equipment

COMPANY INFO

Business: Kersten Construction
In business since: 1965
Location: Omaha, Nebraska
Doosan fleet: DX235LCR and DX420LC-3 crawler excavators; DL250 wheel loader
Doosan dealer: Bobcat of Omaha

Ever since he was a teenager, Randy Kersten, 41, has loved to operate machines. So it was no surprise when he decided to join his family-run construction business 25 years ago. In 1965, his father and grandfather started Kersten Construction, based out of Omaha, Nebraska, by making house calls to fix sewer and water lines. Gradually they expanded their operation to include municipal utility work for housing developments and apartment complexes.

"My dad and grandfather really started the business from the ground up," Kersten says. "They started with wheel trenchers and a backhoe, and then went to rubber-tire backhoe loaders. Now we own seven excavators and five wheel loaders."

Today, Kersten and his employees operate 12 machines, including Doosan DX235LCR and DX420LC-3 crawler excavators and a DL250 wheel loader, purchased from the local Doosan equipment dealer, Bobcat of Omaha. Kersten Construction specializes in underground utility construction projects for residential, industrial and commercial customers in eastern Nebraska and western Iowa. Kersten Construction employees install water lines, sanitary and storm sewer pipe, and septic tanks, as well as complete water and sewer line repairs.

First Doosan customer in Nebraska

Kersten says he tries to keep things as simple as possible, not only with how he runs his business, but also in how he chooses his machines. A machine that was easy to operate and offered low fuel consumption was what Kersten wanted. He tested and eventually purchased a Doosan DL250 wheel loader, making Kersten Construction the first company to buy a Doosan machine from Bobcat of Omaha.

"The hydraulic performance, horsepower and the exceptional main components on the machine were all factors that played into our decision," Kersten says. "We felt Doosan machines were built very well and have been pleased with the Doosan line."

The important machine features for Kersten included:

- Ease of operation
- Cab comfort, especially air conditioning, heat and radio
- Excellent visibility and help from the rearview camera
- Simple maintenance and service support from the local dealer

"We complete a variety of work, so the more versatile we are with our equipment the easier the job will be to complete," he says. "Our crew is also trained in all aspects of sanitary, storm sewer and water main projects, so that helps them understand what needs to get done at each jobsite."

Tough task, no problem

The Doosan equipment was crucial to the company's operators when they excavated the trenches, installed 6,500 feet of storm sewer pipe and backfilled dirt in a new 80-acre housing development in September 2014. Kersten Construction employees relied heavily on the DX420LC-3 excavator for the majority of the storm sewer project due to the excavator's Lifting work mode. In the Lifting mode, low engine rpm, automatic power boost and increased pump torque deliver extra muscle when lifting and properly setting pipe.

"Once we excavated the trench, we used a rock bedding and then laid the pipe by using a pin on the back end of the coupler," Kersten says. "For the amount of pipe that was laid down, it was a fast project. My operators were using the machine five days a week for 10 hours a day, and it continued to have great cycle times, allowing us to complete the project faster."

With the help of Doosan machines, Kersten Construction was able to complete the project in only two weeks, making it one of their quicker projects.

"Our machines had great cycle times, even when running the excavator in full Power mode," he says. "I was getting 6.5 to 6.9 gallons an hour from the machine. It really boosted our overall productivity."

Proven track record

In addition to the sewer line project, Kersten Construction used its Doosan machines for the following projects:

- Installed a half mile of 24-inch water main and helped complete on-site utility tasks for the Nebraska Crossings Outlets mall — a 350,000-square-foot, open-air shopping center
- Unloaded pipe with a DL250 wheel loader equipped with a hydraulic quick coupler and pallet fork attachment; the company took on a significant project — laying 4 miles of large-diameter water main in a residential development and completed it on time
- Finished challenging projects by working flush against buildings and concrete footings, prompting Kersten to buy the DX235LCR reduced tail swing excavator

Although each job is unique, Kersten says what hasn't changed is their use of Doosan machinery.

"Each job has its challenges, whether it's the location of the project or the ground conditions," he says. "You just have to be able to adapt and keep your productivity up. Our Doosan machines have definitely helped us in the past, and I feel they are going to help us in the future, too." DM

Visit **www.doosanequipment.com** to learn more about Doosan crawler excavators and wheel loaders.

"The hydraulic performance, horsepower and the exceptional main components on the machine were all factors that played into our decision. We felt Doosan machines were built very well and have been pleased with the Doosan line."

— Randy Kersten, Kersten Construction

6 MUST-HAVE ATTACHMENTS FOR YOUR NEXT CONSTRUCTION PROJECT

Doosan offers durable attachments for excavators and wheel loaders to tackle light- or heavy-duty construction projects. There are a variety of buckets specifically made for your Doosan excavator, and when you need to do more than dig, there are additional attachments, including breakers, plate compactors and clamps, commonly known as thumbs. You can also add a pallet fork to your wheel loader to transport palletized materials, or a multi-purpose bucket to grade or clamp onto odd-sized materials.

> *"I always want a clamp if I'm clearing trees. It speeds up the work and you can shake the dirt out of a root ball and place a tree higher."*
>
> — **Dean Mount,** R&R Mount Farms

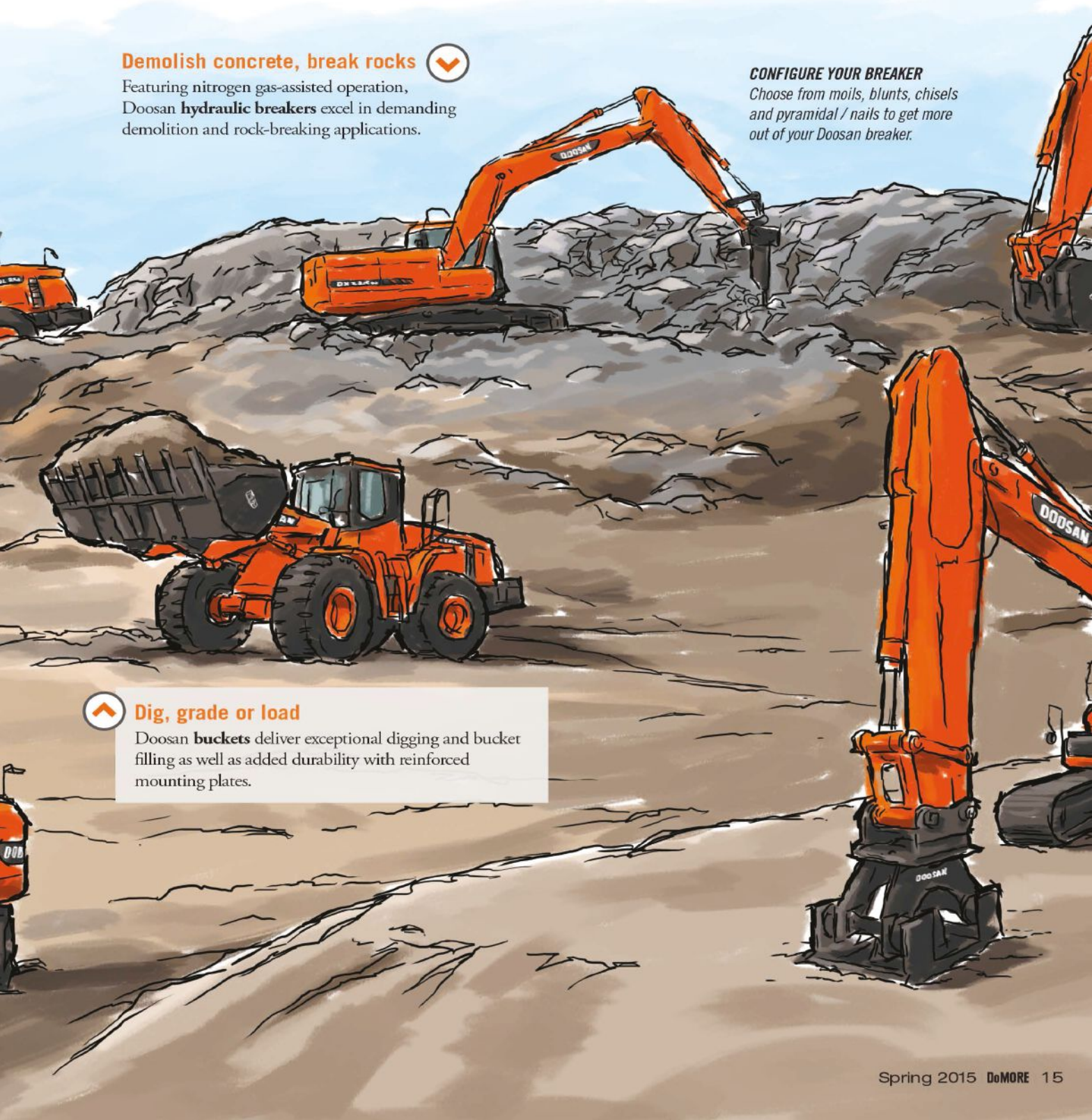
Lift and carry

Intended for construction use, the **pallet fork** helps wheel loader operators efficiently move building materials.

Grab materials

Doosan **clamp** attachments keep objects secure for precise loading and material-handling tasks.

> *"With very little effort, the Doosan breaker was able to conquer the concrete. And because I didn't have to apply much down pressure, I felt like I had greater control. The hammer did all the work ... and did it quite well."*
>
> — **Alan Hulan,** Green Soils



Demolish concrete, break rocks

Featuring nitrogen gas-assisted operation, Doosan **hydraulic breakers** excel in demanding demolition and rock-breaking applications.

CONFIGURE YOUR BREAKER

Choose from moils, blunts, chisels and pyramidal / nails to get more out of your Doosan breaker.

Dig, grade or load

Doosan **buckets** deliver exceptional digging and bucket filling as well as added durability with reinforced mounting plates.

Dig in the dirt

Designed for high capacity with a reinforced diamond-folded top section, the **heavy-duty bucket** has structural strength to handle the toughest digging conditions.

Compact soil

When paired with an excavator, Doosan **plate compactors** eliminate the need for a worker to compact soil in a trench, increasing jobsite safety and operator comfort.

"Our operators change buckets often, so by having the quick coupler, they are able to change an attachment in 30 seconds or less. It really allows us to be more productive and increase our jobsite versatility."

— Chad Mann
Lloyd Collins Construction

Fast attachment changes

For easy attachment changes, Doosan offers hydraulic quick couplers for excavators and wheel loaders.

Lounsbury Excavating, Inc., a Michigan-based construction company, purchased a Doosan DX350LC excavator with a quick coupler that makes it easy for owner Michael Lounsbury to switch between buckets to best match the digging conditions and required widths.

"We do a lot of underground pipe work, bulk digging and truck-loading, and we shape ponds with it," Lounsbury says. "We have a 54-inch trenching bucket with a capacity of 2.25 cubic yards for the DX350LC. We often switch buckets when we're trenching. For example, when we're working in a trench box, we'll put a narrower 36-inch bucket on."

DOOSAN
DXB 190H
EARTH
SHAKINGLY
STRONG.
DOOSAN
DOOSAN
DOOSAN
Doosan attachments are engineered,
built and extensively tested to go blow
for blow with your most difficult jobs.
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DOOSAN WHEEL LOADER DELIVERS SUPERIOR POWER TO HANDLE RECLAIMED ASPHALT

Efficient handling of recycled material is key to profitable manufacturing of new asphalt

COMPANY INFO

Business: Babcock Paving
In business since: 1982
Location: DeMotte, Indiana
Doosan machine: DL420-3 wheel loader
Doosan dealer: Ronson Equipment

Asphalt pavement is recycled twice as much in the United States as paper, glass, plastic and aluminum combined. In fact, no other industry recycles its own product better than the asphalt paving industry — 73 million tons of asphalt is recycled every year, according to the Federal Highway Administration. This environmentally sound and economically beneficial practice helps preserve natural resources and reduce the cost of road construction.

According to the Asphalt Pavement Alliance, "When asphalt pavement is reused in a new asphalt mix, the old asphalt cement is rejuvenated so that it becomes an active part of the glue that holds the pavement together, just like the old aggregate becomes part of the aggregate content of the new mix. These singular properties make asphalt a uniquely renewable resource. The same material can be recycled again and again; it never loses its value."

While there are plenty of benefits from reclaimed asphalt pavement (RAP), there are some challenges in handling the material. Doosan wheel loader operator and yard manager Eric Urbano at the Babcock Paving hot mix asphalt plant in DeMotte, Indiana (pop. 3,814), experiences those challenges every day.

"We can have as many as 100 trucks a day bringing RAP to our yard, stacking it in 10,000-ton piles," Eric says. "The trucks back up a ramp and dump right off the edge. Eventually, the pile becomes the ramp. Just the weight of the trucks driving on the pile causes the material to really consolidate. After the RAP sits in the yard and bakes in the sun for a while, the heat glues it back together. It gets very hard."

When the plant is in full production mode, the broken up RAP needs to be delivered promptly. That's less of a problem these days since a new wheel loader arrived. The Doosan DL420-3, a 354-net-horsepower machine, has more than answered the challenge.

"There's a night-and-day difference in efficiency compared to our previous wheel loader," Eric says. "I used to struggle to keep up, but the Doosan wheel loader has superior power for breaking up the RAP and the speed to go up the ramp and deliver the material to the plant. It gives us the breakout force to get into the pile and come out with a full bucket. No more wheels spinning. Now I have plenty of time to do the other parts of my job. The wheel loader has made my job much easier."

During the peak season, the Babcock Paving plant produces an average of 500 tons per day. That number has risen to as high as 3,000 tons a day.

A critical job for the wheel loader is to bring various stockpiled materials to the seven bins that feed the plant. Each bin has a ramp that the wheel loader has to climb, at times with as much as an 8-ton load in a 5-cubic-yard bucket.

"Going up a ramp with a full load was an important factor we considered when evaluating wheel loaders," Rodney Urbano general manager says. "We also need power when pushing into piles to pick up material. Without adequate power you cannot drive into a pile, especially recycled asphalt, and fill up your bucket. You don't want to be going back and forth with half a bucket.

"The Doosan wheel loader has superior power for breaking up the RAP and the speed to go up the ramp and deliver the material to the plant."

— **Eric Urbano,** Babcock Paving

The DL420-3 provides the power to dig in, load up fully and efficiently go up each ramp."

Family business

Five Urbano brothers own and manage Babcock Paving (the manufacturing part of the business) and Town & Country Paving (the construction company that does the paving). Dan is the plant manager, Rodney is the general manager, John is paving crew foreman, Carmen oversees the maintenance shop and moves equipment around, and Mike manages human resources and safety. Nephew Eric Urbano is a yard manager. Another owner is their mother, Toni, who married Tom Burns, the founder of the company. He started the business in 1982 going door to door with a pickup truck and a shovel selling asphalt driveways throughout Northwest Indiana.

"We had been using 1960s technology, and with volatile oil and gas markets, we realized that we would either need to get 21st century technology or be passed by competitors," Rodney says. "We invested several million dollars to build a new state-of-the-art plant and certified lab to assist customers in designing asphalt to their specifications. The lab was a significant addition to our business. For years we talked about: How could we afford to build and staff one? Today we say: How could we not afford it?"

Although the new plant was built during an economic downturn, the brothers saw it as the perfect time to prepare the company for the future. The modern plant with new technology increased volume (up to 150,000 tons annually) and created plenty of additional activity in the yard. The new Doosan wheel loader enabled the company to keep up with the demands of the plant, and do it more efficiently.

"The day you stop investing in new equipment and technology is the day you stop growing your company," Rodney says.

Recycling necessary

Today, recycling has the biggest impact on the success of an asphalt plant, according to Rodney.

"If you are not running recycled pavement through your plant, you will not stay in business," he says. "On every milling job, we bring back the material to our yard and run it through our crusher and screener to get it down to size.

"By using about 25 percent RAP in our product, there is a significant impact on price," he continues. "Around here surface asphalt retails for about $60 per ton; recycled material lowers the price about $7 a ton. That price reduction is necessary to be competitive."

About 90 percent of the asphalt manufactured by Babcock Paving is sold to its affiliated company, Town & Country Paving. Typically that organization sends out two crews for each job: a prep team to do fine grading and to install the stone base, followed by a paving crew that lays down the asphalt. DM

Visit **www.doosanequipment.com** and click on the Wheel Loader link on the Products tab to learn more about the Doosan DL420-3 wheel loader.

ASPHALT INDUSTRY BY THE NUMBERS

93% of **2.6 million miles** of paved roads and highways are asphalt

4,000 asphalt plants in the U.S. produce **500 – 550 million tons** a year

300,000 workers

Reduces burden on taxpayers by **more than $2 billion**

More than 99% goes back into new roads

Saves **hundreds of millions of cubic yards** of landfill space each year

Source: National Asphalt Pavement Association

John Urbano Paving Crew Foreman

Carmen Urbano Shop Foreman

Mike Urbano Personnel Manager

Rodney Urbano V.P. and General Manager

Dan Urbano Plant Manager

Eric Urbano Yard Manager

MORE BUSINESS WITHIN REACH

Firms not afraid to complete jobs — on land or water — with super-long-reach excavators

Working around water is certainly not for everyone. It requires a special talent, a boatload of unique equipment and a sense of adventure in dealing with the unknown.

Both Wickberg Marine Contracting and Carolina Marine Structures have carved out a very successful niche for themselves handling dredging and other projects along east coast waterways using Doosan heavy equipment, including excavators and wheel loaders. The value of these machines, however, doesn't stop where the water ends. Their versatility shines in many land applications, too.

COMPANY INFO

Business: Wickberg Marine Contracting
In business since: 1977
Location: Belford, New Jersey
Doosan fleet: DX300LC SLR and DX340LC crawler excavators
Doosan dealer: Hoffman Equipment

Equipment provides dredging options

During the past few years, Richard Wickberg, president of Wickberg Marine Contracting, has overseen a plan that moved the company beyond hydraulic dredging to include mechanical dredging and jetty construction. The plan was put into motion when Ted Faxon joined the company.

"My background was mechanical dredging, so when I came on board the company saw a new opportunity and made a big investment in another long-reach excavator, a couple of dozers, an off-road dump truck and additional barges and boats," Faxon says. "As a result of that commitment by ownership, we are the biggest 'back channel' dredging outfit in the region."

He points out that the multimillion-dollar business is equally divided between mechanical and hydraulic dredging — so they can provide the best option for each job. Their clients include the New Jersey Department of Environmental Protection (DEP), U.S. Army Corps of Engineers, municipalities, townships and marina owners.

"With four dredges, we are the only company in New Jersey that has more than one, and there are only two of those firms," he says. "There are not a lot of people who have the experience to get into this business. It's very expensive — especially buying equipment for the hydraulic process — and when you work on the water there are many unknowns. That makes people nervous."

Last year, for example, the company was hired by the New Jersey DEP to remove about 20,000 cubic yards of material from Twilight Lake in Ocean County. The original plan called for hydraulic dredging. Faxon, however, believed the mechanical method would be more cost-effective.

"I contacted the DEP, explained the job to them and we both agreed it would be impossible to do it hydraulically because of the limited space for the dewatering area," he says. "We were the only contractor to get permission from the DEP prior to the bid date to mechanically handle the job. We are one of the few firms that are equipped to handle both types of dredging. That's an advantage for us."

Another advantage is their Doosan DX300LC SLR (super-long-reach) crawler excavator. The company used the machine, situated on a barge, to reach through the water and dig down to the original bottom of Twilight Lake, to remove excess sediment that had been

> *"The Doosan excavators we have added the past couple of years have helped expand our capabilities and opened the door to more work."*
>
> — **Ted Faxon,** Wickberg Marine Contracting

deposited from a stormwater outfall pipe, as well as from several thousand cubic yards of sand left over from Hurricane Sandy in 2012. The goal of the county was to enhance the aquatic use and health of the lake.

After using the DX300LC SLR excavator with a reach of 57 feet on several other dredging projects, Faxon raves about its efficiency.

"Dollar for dollar, it's as good as any similar machine," he says. "Our operators like the user-friendly features such as the quiet, comfortable cab with excellent visibility. Fast cycle times, superior fuel efficiency and reliability make the excavator very valuable."

Another Doosan machine, a DX340LC excavator, handles some of the heavier lifting jobs.

"We will do most projects on the water — back channels, not ocean — that our equipment is capable of handling," Faxon says. "The Doosan excavators we have added the past couple of years have helped expand our capabilities and opened the door to more work."

COMPANY INFO

Business: Carolina Marine Structures
In business since: 2004
Location: Kill Devil Hills, North Carolina
Doosan fleet: Two DX225LC SLR crawler excavators; DL250TC wheel loader
Doosan dealer: H&E Equipment Services

Water project expert

When Chris Coleman started his second marine construction company 11 years ago, his approach to the business was decidedly different than his first trip around the water.

"My first company got so big that I was not even seeing my projects being built," he says, speaking of the 200-employee organization he ran in Virginia. "I was sitting behind a desk, putting out fires and dealing with problems. This time I wanted to be out in the field operating machinery, doing the building and teaching my employees how to build these jobs properly."

His new enterprise, Carolina Marine Structures, located in Kill Devil Hills, North Carolina, has grown into the largest marine contractor on the Outer Banks. Coleman and his 15 employees specialize in dredging, bridge and culvert projects, boat ramps, bulkhead piers and other water-related types of work.

A significant factor in his new approach was replacing large cranes with a pair of Doosan DX225LC SLR crawler excavators.

"I intended to purchase one machine, but when I demoed it and discovered the excellent pricing structure, I took two of them," he says.

Aside from the cost, the economic impact of the excavators has proven very beneficial.

"If you take the operators out of the equation, I can put two excavators on the job for $400 a

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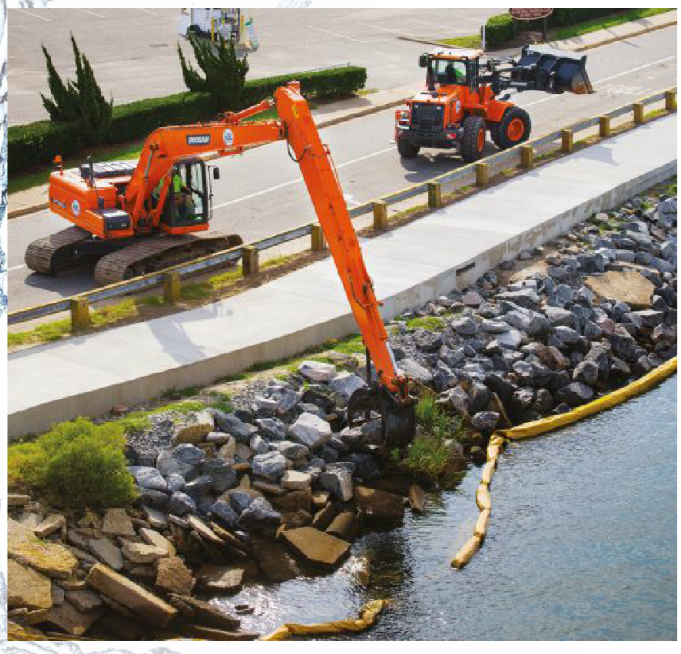


day," Coleman says. "The crane costs $800 a day. Even if I have the crane on-site, I still need one excavator to do a lot of the work that the crane is unable to do. So, I am really adding only one additional excavator when I have two on the job. That's just one example of how the two Doosan crawler excavators make me money."

When the City of Chesapeake hired Carolina Marine Structures to install a bridge culvert, Coleman's strategy of using his SLR excavator worked perfectly.

"Instead of having an expensive crane on-site the entire time, we put an excavator on each side of the existing bridge for all of our coffer dam work, excavation and bottom prep," he says. "Other firms would most likely have estimated the job using a crane the entire time, waiting to use it a few times during a 100-day rental. We got by with renting a crane for 15 hours to set the 20-ton box culverts. I got it — and the expense — out of my hair as fast as I could. We were able to do most of our lifts with the excavator. When a job was a little too heavy for one, we used both of them working together to swing the precast concrete panels in place. These excavators are the real deal."

When Coleman has a dredging job, in most cases one of his SLR excavators will be on a barge out in the channel and using a grading bucket to dig in the water. The other will be on an off-loading platform dumping material into trucks. Scow barges — flat-bottomed boats often used to haul bulk freight — go back and forth between the two machines.

He also has a Doosan DL250TC (tool carrier) wheel loader with a quick coupler to easily change attachments. That machine, equipped with a bucket, is an excellent complement to the excavators.

It's not unusual to find the excavators and wheel loader working side by side on the same job and to see Coleman right there as well, operating one of the Doosan machines.

"I would rather be in the field than anywhere else," he says. "That allows me to be the quality control guy on every job, and I think that really helps build the business." DM

Get the reach you need

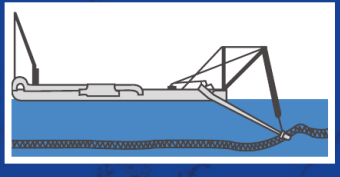
Doosan DX225LC-5 SLR (super-long reach)

Doosan DX225LC-5

2 ways to dredge

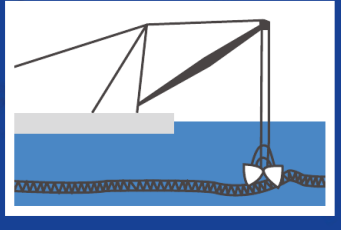
For removing material from the bottom of a waterway:

HYDRAULIC DREDGING



Cutting head that dislodges sediment is immediately suctioned into a flexible, floating pipe that carries it to a barge or dewatering facility on shore.

MECHANICAL DREDGING



Excavator (often a long-reach model) on a barge uses a bucket to remove sediment from the water and deposit it on material-handling barges that move it to an off-loading site.

Visit **www.doosanequipment.com** and click on the Crawler Excavators link on the Products tab to learn more about Doosan crawler excavators and super-long-reach models.

MAKING BETTER USE OF THE LAND EXPANDS CANADIAN BUSINESS

Doosan equipment helps prepare landscape to accommodate specialty crops

Since 1949, Annapolis Valley Peat Moss has been successfully harvesting and shipping sphagnum peat moss, a specialty crop that's used as a natural, organic soil conditioner to help regulate moisture and air around plant roots. The product is bought by greenhouses and nurseries for use as a soil additive, and also used in Japan for growing rice. More than 5,000 acres of the company's peat moss is sold to greenhouses worldwide — the majority in the United States, but also in Japan, Australia, South Korea and occasionally Europe.

After years of growing peat moss, soil becomes acidic and crops should be rotated to make better use of the land. So, as the peat moss industry remained stagnant, the company decided to repurpose the land where the moss is grown by planting cranberries and blueberries.

COMPANY INFO

Businesses: Annapolis Valley Peat Moss, Perfect Berries Limited
In business since: 1949, 2001
Location: Berwick, Nova Scotia
Doosan fleet: DX180LC-3 and DX225LC-3 crawler excavators; DL200TC and DL220-3 wheel loaders
Doosan dealer: Nova International Ltd.

In 2001, Perfect Berries Limited was started to specialize in small fruit growing on farmland in Aylesford in Nova Scotia's Annapolis Valley — located between the North and South mountains just 10 minutes from Annapolis Valley Peat Moss headquarters. But, in order to grow a successful cranberry and blueberry business, the soil had to be man-made.

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"There is no natural soil for these two types of fruit to successfully grow," says Henry Endres, president of both companies. "The cranberry and blueberry plants need acidic soil along with a clay base."

Laser-guided equipment perfectly leveled the soil to provide even drainage, and then a clay bed was added to retain water. After the field was built, drainage and irrigation systems were installed, using Doosan DX180LC-3 and DX225LC-3 crawler excavators purchased from Nova International, the local Doosan construction equipment dealer in Nova Scotia.

"There was no close river that I could draw water from, but there was a hill that runs through the valley that we could get rainwater from," Endres says. "The water that comes down through the valley needs to be stored in reservoirs/ponds so we can flood 200 acres throughout the year."

The Doosan excavators were put to work by creating 25 acres of ponds, all 20 feet deep, to irrigate the fields. Through the closed system, any excess water runs into the ditches, creating a properly watered fruit.

Why choose Doosan equipment?

After working with Nova International for more than two years, Endres decided to give Doosan equipment a try, and, so far, he has been impressed with his machines' functionality, operator comfort and ease of maintenance.

Endres has also been pleased with the performance and visibility of the Doosan DL220-3 and DL200TC wheel loaders — particularly the optional rearview camera, which he uses to load and harvest peat moss. The DL200TC (tool carrier) model has a parallel-lift linkage system — providing good forward visibility — and is paired with a quick coupler to easily change attachments.

"When hauling peat moss, most other loaders didn't stand up to the demand," Endres says. "Doosan has larger tires and a stronger axle, allowing us to put more on the machine."

Endres also appreciates the low engine emissions and optimal operator comforts — his Doosan wheel loaders have ergonomic

"I try to look at fuel consumption and how we can save money, while keeping in mind engine emissions. The machine really has to stand on its own merit, and these machines have done just that."

— Henry Endres, Annapolis Valley Peat Moss

controls, an easy-to-read LCD screen, adjustable air suspension seat, heat and air conditioning, and standard radio with a CD and MP3 player.

"I try to look at fuel consumption and how we can save money, while keeping in mind engine emissions," he says. "The machine really has to stand on its own merit, and these machines have done just that."

According to Endres, making sure operators are comfortable is a priority, especially when they work 10 hours a day. And, as far as serviceability goes, if a problem arises with any of his Doosan machines, his Doosan dealer is quick to remedy the problem.

"I only keep the wheel loaders for a year and seldom put over 1,000 hours on each machine, so I need to have only one mechanic at each facility," he says. "If I need anything serviced, my Doosan dealership is much closer than other dealerships and is willing to help when I need anything."

Two successful additions

The move to add different crops — and Doosan equipment — paid off. Currently, Perfect Berries Limited is the only cranberry processor in Eastern Canada, boasting 200 acres of the product, and has an additional 100 acres of blueberry plants. The company markets its product by the name Cranberry Acres, and is the only company that grows, processes and also packages cranberries in Atlantic Canada.

As Endres continues to maintain his peat moss, cranberry and blueberry businesses, he is hopeful to add more Doosan machines to his fleet.

"As for peat moss, there really isn't a good substitute because of its water-holding capacities; there's really nothing like it that can perform the same," he says. "As for our blueberry business, it's been a 10 percent increase almost every year. If we are producing and selling products at a fast rate, we will eventually need more equipment to help with the demand." **DM**

Visit **www.doosanequipment.com** for more information about Doosan excavators and wheel loaders.

Did you know?

Cranberry bushes thrive in cool temperate conditions, particularly in northern North America, and are harvested in fall, usually in September through the first part of November. The berries can be harvested two ways: dry harvesting or wet harvesting. Dry harvesting consists of using a walk-behind machine to comb the berries off the vines. Berries are then removed from the bogs by bog vehicles or helicopters and delivered to fresh fruit markets. Wet-harvested cranberries float in water bogs and are harvested with wooden or plastic "booms," then lifted by conveyor or pumped into a truck to the receiving station for cleaning. This technique is used for juices, sauces and sweetened dried cranberries.

Source: Cape Cod Cranberry Growers Association

FOUR DECADES LATER, DOOSAN ADTS ARE STILL AN INDUSTRY LEADER

For 40-plus years in operation, Doosan articulated dump trucks (ADTs) have been called on time and time again to complete some of the toughest jobs — because of their optimal power, performance and technological advancements. Today, Doosan ADTs still hold true to those same features and functionalities with the new DA30-5 and DA40-5 models.

ADTs come to life

In 1970, Norwegian industrialist Birger Hatlebakk had the idea for producing a heavy-duty dump trailer drawn by a powerful tractor with rear wheels. And the first dump truck, a D20 powered by a 202-horsepower Scania D11 diesel engine, was born.

Two years later in 1972, Moxy bought the rights to the company's first articulated dump truck, the Viking D15, featuring a bogie under the dump box and six-wheel drive. In 1974, production was moved from Molde, Norway, to a new facility in Elnesvagen, where Doosan ADTs continue to be built today.

In 1985, the first ADTs arrived in the United States, and that year the company released three new models — the 5222, 6225S and 6227S. During the 1990s, the company launched the MT30 and the MT40 models.

"The MT30 was the best-selling Moxy truck of all time due to, in fact, that the model was well-known for its ability to move and operate in difficult conditions such as wet, muddy and uneven terrains," says Ove Hustad, ADT product service manager. Hustad worked at the factory and was one of the employees helping with final assembly when the first trucks bound for North America came down the line.

A landmark change happened in 2008 when Moxy was purchased by Doosan, changing the name to Doosan Moxy AS. This change expanded the Doosan product line and pinpointed the company as a top global construction equipment supplier. In 2012, Doosan celebrated 40 years since the permanent six-wheel-drive truck was produced. Two years later, in 2014, Doosan marked the 30th anniversary since the first Moxy ADTs arrived in North America.

Today's Doosan ADTs

The most recent new model introduction, the DA30-5 and DA40-5, continues the legacy of delivering optimal power, performance and technological advancements.

The 362-net-horsepower DA30-5 and 483-net-horsepower DA40-5 are powered by Tier 4 (T4) compliant Scania DC9 and DC13 diesel engines, respectively. Ewen Gilchrist, Doosan ADT sales and marketing director, says the models offer improved fuel efficiency and are designed to deliver one of the lowest costs of ownership available in the market today. The new DA30-5 used approximately 4 gallons (15 liters) an hour while the DA40-5 recorded an average of 4.5 gallons (17 liters) during hot and cold weather testing with customers (note: these numbers depend entirely on the operator and application).

Improved operator comfort

Doosan ADTs have evolved by placing more emphasis on operator comfort and visibility, making them the best trucks for off-road hauling applications.

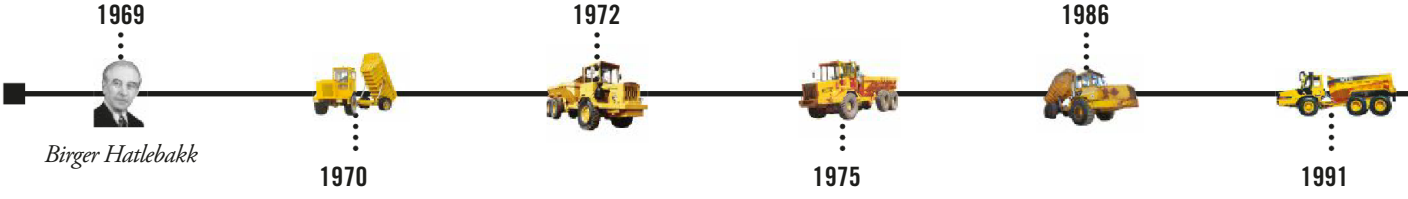
Design developments include:

- Standard heat and air conditioning
- Ergonomic controls
- Fully adjustable air-suspension seat
- Lowest noise levels in its size class
- Sloping hood
- Tilting and telescopic steering
- Cushioned dump cylinders
- Upgraded monitor panel

"I knew nothing about Doosan before I tested (the ADT). The results were impressive — they had power, moved quickly and didn't break down."

— Rick Buzzo, R&D Trucking of Morgantown, Inc.

EVOLUTION OF DOOSAN ADTs



Enhanced design features

The new DA30-5 and DA40-5 were designed to provide improved operator control, says Gilchrist, especially with the new standard gradient meter. Two meter readings are visible on the 7-inch color LCD screen, including uphill / downhill shown as a percentage and sideways tilt shown as a degree value.

"Combine that with a sloping rear frame and forward-mounting turning ring, which allows the weight of the loaded body to be transferred forward, lowering the center of gravity," Gilchrist says. "The free-swinging gear-driven tandem housing allows all wheels to maintain continuous ground contact over uneven terrain."

This allows Doosan ADTs to excel in diverse applications — mass excavation, mines and quarries, sanitary landfills, road infrastructure projects and on-site building construction sites.

Unmatched serviceability

When operators need to service their Doosan ADTs, they find that each truck features a hood that opens 83 degrees, giving excellent access to the engine. Other serviceability features include:

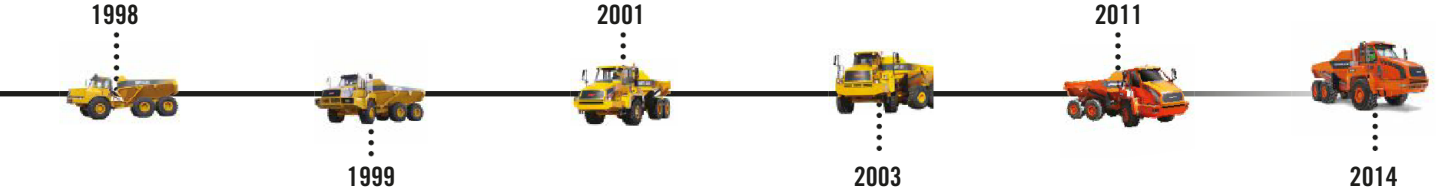
- A tilting cab to access the transmission and hydraulic components
- Single rear-axle design with tandem gear-driven bogie
- Three wear parts on the rear frame
- Automatic lubrication system

After more than four decades of manufacturing durable and reliable articulated dump trucks, Doosan continues to listen to its customers to enhance the trucks, thereby improving operator productivity and truck performance. **DM**

Visit **www.doosanequipment.com** to learn more about Doosan ADTs.

"A Doosan ADT is very mobile and agile, the operators like the comfortable cab; maintenance is simple and when working in wet clay, it displays very good traction."

— Dustin Crittenden
DeVere Construction



DOOSAN HEAVY EQUIPMENT

Excavators / Log Loaders

Crawler | Wheel

	Model CRAWLER	Engine hp (kW) NET	Operating Weight lb. (kg)	Arm Breakout Force lbf. (kg)	Max. Digging Depth ft./in. (mm)	Max. Reach at Grade ft./in. (mm)	Max. Dump Height ft./in. (mm)
	DX63-3	59 (44)	13779 (6250)	5765 (2615)	13' 6" (4115)	20' 5" (6230)	13' 11" (4242)
	DX85R-3	59 (44)	18960 (8600)	8069 (3660)	15' 6" (4725)	23' 11" (7295)	16' 4" (4995)
NEW	DX140LC-5	113 (85)	32783 (14870)	13228 (6000)	20' 1" (6135)	27' 11" (8530)	21' 1" (6440)
NEW	DX140LCR-5	113 (85)	34987 (15870)	13228 (6000)	19' 7" (5985)	27' 11" (8530)	23' 2" (7080)
NEW	DX180LC-5	129 (96)	43224 (19606)	20503 (9300)	20' 0" (6110)	29' 7" (9020)	21' 3" (6500)
NEW	DX225LC-5	162 (121)	52086 (23626)	23810 (10800)	21' 7" (6580)	31' 10" (9710)	22' 5" (6840)
NEW	DX225LC-5 SLR	162 (121)	55731 (25279)	13288 (6000)	38' 2" (11650)	50' 0" (15265)	35' 6" (10845)
NEW	DX235LCR-5	181 (135)	56019 (25410)	24471 (11100)	21' 10" (6670)	31' 7" (9630)	26' 0" (7950)
	DX255LC-5	184 (137)	57752 (26196)	28219 (12800)	22' 4" (6810)	32' 9" (9995)	23' 0" (7025)
	DX300LC-5	267 (199)	68764 (31191)	30644 (13900)	23' 11" (7290)	34' 6" (10530)	23' 10" (7264)
	DX300LC-5 SLR	267 (199)	72462 (32868)	16535 (7500)	45' 2" (13792)	57' 0" (17399)	39' 3" (11963)
	DX350LC-5	313 (233)	80654 (36580)	41667 (18900)	24' 8" (7535)	35' 11" (10970)	23' 6" (7175)
	DX420LC-5	338 (252)	94799 (43000)	43431 (19700)	25' 4" (7740)	37' 0" (11290)	25' 3" (7710)
	DX490LC-5	373 (278)	112206 (50896)	50045 (22700)	25' 6" (7790)	38' 11" (11865)	25' 9" (7865)
	DX530LC-5	373 (278)	116576 (52878)	56879 (25800)	24' 0" (7340)	37' 6" (11455)	25' 4" (7725)
	DX530LC-5 SLR	373 (278)	117112 (53120)	26235 (11900)	49' 7" (15125)	63' 9" (19455)	39' 0" (11890)

	Model WHEEL	Engine hp (kW) NET	Operating Weight lb. (kg)	Arm Breakout Force lbf. (kg)	Max. Digging Depth ft./in. (mm)	Max. Reach at Grade ft./in. (mm)	Max. Dump Height ft./in. (mm)
NEW	DX140W-5	124 (93)	31526 (14300)	17064 (7740)	14' 8" (4490)	24' 2" (7375)	19' 4" (5905)
NEW	DX190W-5	168 (125)	43431 (19700)	20944 (9500)	18' 9" (5725)	29' 8" (9050)	22' 2" (6765)
NEW	DX210W-5	161 (120)	45761 (20757)	22487 (10200)	20' 6" (6255)	32' 9" (10000)	23' 9" (7250)

	Model LOG LOADER	Engine hp (kW) NET	Operating Weight lb. (kg)	Max. Loading Reach lbf. (kg)	Max. Loading Height ft./in. (mm)	Swing Speed rpm	Draw Bar Pull lbf. (kgf)
	DX225LL	148 (110)	65036 (29500)	36' 2" (11035)	42' 5" (12920)	11.7	71070 (32237)
NEW	DX300LL-5	267 (199)	81703 (37060)	37' 11" (11570)	43' 1" (13135)	9.9	76611 (34750)

LC = long carriage LCR = long carriage, reduced tail swing W = wheel SLR = super-long reach LL = log loader

Material Handlers

Model	Engine hp (kW) NET	Operating Weight lb. (kg)	Swing Torque lbf.-ft. (kgf-m)	Drawbar Pull lbf. (kgf)	Max. Loading Reach ft./in. (mm)	Max. Loading Height ft./in. (mm)
DX210WMH	161 (120)	58202 (26400)	60786 (8404)	26742 (12130)	35' 9" (10900)	39' 8" (12100)
DX225MH-3	162 (121)	60848 (27600)	60757 (8400)	60715 (27540)	35' 5" (10800)	40' 0" (12200)
DX300MH-5	267 (199)	79366 (36000)	87787 (12137)	83258 (37765)	42' 8" (13000)	46' 3" (14100)

Wheel Loaders

Model	Engine hp (kW) NET	Operating Weight lb. (kg)	Bucket Capacity cu. yd. (m^3)	Max. Dump Height ft./in. (mm)	Breakout Force lbf. (kg)
DL200-3	160 (119)	26810 (12160)	2.6 (2)	9' 6" (2890)	22230 (10083)
DL200HL-3	160 (119)	28000 (12720)	2.6 (2)	10' 9" (3270)	22030 (9993)
DL200TC-3	160 (119)	26830 (12170)	2.6 (2)	8' 10" (2685)	23040 (10452)
NEW DL250-5	172 (128)	30115 (13660)	3.3 (2,5)	9' 2" (2802)	23830 (10809)
NEW DL250HL-5	172 (128)	31130 (14120)	3.3 (2,5)	10' 8" (3246)	23380 (10605)
NEW DL250TC-5	172 (128)	31590 (14330)	3.3 (2,5)	9' 0" (2749)	22931 (10401)
DL300-5	271 (202)	41844 (18890)	4.2 (3,2)	9' 4" (2845)	37768 (17131)
DL300HL-5	271 (202)	41869 (19445)	4.2 (3,2)	11' 2" (3395)	36644 (16621)
DL350-5	271 (202)	43541 (19750)	4.8 (3,7)	10' 0" (3040)	36869 (16723)
DL350HL-5	271 (202)	44743 (20295)	4.8 (3,7)	11' 8" (3565)	36869 (16723)
DL420-5	345 (257)	50784 (23035)	5.5 (4,2)	10' 1" (3075)	47210 (21414)
DL420HL-5	345 (257)	51919 (23550)	5.5 (4,2)	11' 9" (3585)	49458 (22434)
DL450-5	345 (257)	56868 (25795)	6.3 (4,8)	10' 8" (3240)	51930 (23555)
DL450HL-5	345 (257)	57618 (26135)	6.3 (4,8)	12' 3" (3730)	51256 (23250)
DL550-5	380 (283)	69897 (31705)	7.5 (5,7)	11' 2" (3405)	55303 (25085)
DL550HL-5	380 (283)	71617 (32485)	7.5 (5,7)	12' 7" (3830)	56877 (25799)

HL = high lift TC = tool carrier

Articulated Dump Trucks

Model	Engine hp (kW) NET	Operating Weight (empty with tailgate) lb. (kg)	Max. Loaded Weight lb. (kg)	Heaped Capacity (with tailgate) cu. yd. (m^3)	Payload lb. (kg)
DA30-5	362 (270)	51588 (23400)	113318 (51400)	23.3 (17,8)	61729 (28000)
DA40-5	483 (360)	70107 (31800)	158292 (71800)	34 (26)	88185 (40000)

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